

NOT FOR RELEASE BEFORE
11:00 A.M. NOVEMBER 17, 1983

REMARKS BY C. EVERETT KOOP, M.D., SURGEON GENERAL,
AT PRESS CONFERENCE RELEASING THE 1983 SURGEON GENERAL'S
REPORT ON THE HEALTH CONSEQUENCES OF SMOKING: CARDIOVASCULAR
DISEASE.

THE DOCUMENT WE ARE PRESENTING TODAY IS A SCIENTIFIC REVIEW, AN EXAMINATION OF THE WORLD LITERATURE AS IT RELATES TO CARDIOVASCULAR DISEASE AND THE USE OF TOBACCO, PARTICULARLY CIGARETTE SMOKING. IT IS ALSO A DOCUMENT WITH IMPORTANT MEDICAL AND PUBLIC HEALTH IMPLICATIONS.

THE MAJOR CARDIOVASCULAR DISEASES ASSOCIATED WITH CIGARETTE SMOKING ARE CORONARY HEART DISEASE, CEREBROVASCULAR DISEASE, AND PERIPHERAL VASCULAR DISEASE. COLLECTIVELY THESE DISEASES ARE RESPONSIBLE FOR MORE THAN THREE-QUARTERS OF ALL DEATHS FROM DISEASES OF THE CIRCULATORY SYSTEM AND ALMOST ONE-HALF OF ALL DEATHS FROM ALL CAUSES EACH YEAR.

THE CENTRAL FACT ADDRESSED IN THIS REPORT IS THAT CIGARETTE SMOKERS EXPERIENCE HIGHER MORTALITY FROM CORONARY HEART DISEASE THAN NONSMOKERS. THIS EXTRA MORTALITY IS PERSISTENT AT ALL AGES, IS EXPERIENCED BY BOTH MEN AND WOMEN, AND OCCURS IN EVERY COUNTRY WHERE CORONARY HEART DISEASE IS A SIGNIFICANT CAUSE OF DEATH.

I WOULD ILLUSTRATE THIS EXCESS MORTALITY WITH THIS CHART, USING DATA EXCERPTED FROM TABLE 9, SECTION 3, OF THIS REPORT.

CHART: CORONARY HEART DISEASE MORTALITY RATES
BY AGE AND SMOKING CHARACTERISTIC

THESE DATA COME FROM THE AMERICAN CANCER SOCIETY'S 25-STATE, MILLION-PERSON STUDY. THEY ARE CONFIRMED OVERALL BY EVERY OTHER PROSPECTIVE STUDY OF WHICH WE KNOW.

THE EXCESS MORTALITY EXPERIENCED BY CIGARETTE SMOKERS IS BEYOND CHALLENGE. THE 1964 REPORT OF THE ADVISORY COMMITTEE TO THE SURGEON GENERAL NOTED THE CLEAR ASSOCIATION BETWEEN SMOKING AND DEATH FROM CORONARY HEART DISEASE. AT THAT TIME THE COMMITTEE FELT THE CAUSATIVE ROLE WAS NOT PROVEN, BUT IT SAID THAT "IT IS MORE PRUDENT TO ASSUME THAT THE ESTABLISHED ASSOCIATION BETWEEN CIGARETTE SMOKING AND CORONARY DISEASE HAS CAUSATIVE MEANING THAN TO SUSPEND JUDGMENT UNTIL NO UNCERTAINTY REMAINS."

IN 1971 AND AGAIN IN 1979 THE PUBLIC HEALTH SERVICE REEXAMINED THE QUESTION. BY 1979, EVIDENCE AVAILABLE FOR ANALYSIS FROM BOTH NATIONAL AND INTERNATIONAL STUDIES HAD GREATLY INCREASED AND MANY ADDITIONAL MILLIONS OF PERSON-YEARS OF OBSERVATION HAD ACCUMULATED. THE AUTHORS OF THE 1979 REPORT WERE ABLE TO STATE

THAT "GIVEN THE CHARACTERISTICS OF ITS ASSOCIATIONS WITH HEART ATTACK, IT CAN BE CONCLUDED THAT SMOKING IS CAUSALLY RELATED TO CORONARY HEART DISEASE IN THE COMMON SENSE OF THAT IDEA AND FOR THE PURPOSES OF PREVENTIVE MEDICINE." THIS JUDGMENT WAS BASED ON THE EPIDEMIOLOGICAL CRITERIA OF STRENGTH, CONSISTENCY, SPECIFICITY, TEMPORALITY, AND COHERENCE.

ONE OF THE ELEMENTS SUPPORTING THE JUDGMENT OF CAUSALITY IS THE EFFECT OF SMOKING CESSATION. SMOKERS CAN AND DO REDUCE THEIR EXTRA RISK OF CORONARY HEART DISEASE AND EARLIER DEATH WHEN THEY QUIT SMOKING. FROM THE VIEWPOINT OF PREVENTIVE MEDICINE, THE INFORMATION ON THE MRFIT STUDY, THE MULTIPLE RISK FACTOR INTERVENTION TRIAL, PRESENTED IN THIS REPORT SEEMS TO ME PARTICULARLY STRIKING. OVER 7,500 CIGARETTE SMOKERS WERE ENROLLED IN THIS STUDY AND BY THE END OF THE FIRST YEAR, 1,365 HAD QUIT SMOKING. SIX YEARS LATER, THE CORONARY HEART DISEASE MORTALITY OF THIS GROUP WAS 45 PERCENT LESS THAN THE MORTALITY OF THOSE WHO DID NOT QUIT.

CORONARY HEART DISEASE IS THE RESULT OF A MULTIFACTORIAL PROCESS. ALONG WITH CIGARETTE SMOKING, THE MAIN RISK FACTORS ARE ELEVATED SERUM CHOLESTEROL AND UNCONTROLLED HYPERTENSION; EACH CONTRIBUTES TO THE RISK OF CORONARY HEART DISEASE INDEPENDENTLY AND WITH ABOUT EQUAL MAGNITUDE.

WHEN ANY TWO FACTORS ARE PRESENT AT THE SAME TIME, OR WHEN ALL THREE ARE PRESENT, THERE IS AN ESCALATION OF RISK BEYOND THE SIMPLE SUM OF THE COMPONENT FACTORS. THIS IS ILLUSTRATED IN THIS CHART, ADAPTED FROM FIGURE 8, SECTION 3, OF THE REPORT.

CHART: MAJOR RISK FACTORS FOR CORONARY HEART DISEASE

AS WILL BE SEEN, THE RISKS INCREASE EXPONENTIALLY -- A PERSON WITH ONE RISK FACTOR APPROXIMATELY DOUBLES HIS CORONARY HEART DISEASE RISK COMPARED TO AN INDIVIDUAL WITH NONE OF THE RISK FACTORS PRESENT. TWO FACTORS PRESENT A FOURFOLD RISK AND ALL THREE RISK FACTORS AN EIGHTFOLD RISK.

FOR TWO DECADES NOW, ALL THREE OF THESE RISK FACTORS HAVE BEEN DECREASING IN THE UNITED STATES POPULATION AND DEATHS FROM CORONARY HEART DISEASE HAVE BEEN FALLING. THE PERCENTAGE OF SMOKERS IN THE POPULATION HAS GONE DOWN, FROM 41.7 PERCENT TO 32.6 PERCENT SINCE 1965; THE AWARENESS AND EFFECTIVE TREATMENT OF HYPERTENSION HAS INCREASED DRAMATICALLY; AND NUTRITIONAL CHANGES HAVE OCCURRED. SIGNIFICANT IMPROVEMENTS HAVE TAKEN PLACE IN GENERAL MEDICAL, SURGICAL, AND CARDIOLOGICAL CARE DURING THIS PERIOD.

THE DECREASE IN CARDIOVASCULAR MORTALITY HAS BEEN DRAMATIC. IF THE DEATH RATE FOR CORONARY HEART DISEASE OPERATING IN 1963 WERE STILL IN EFFECT, THERE WOULD HAVE BEEN SOME 290,000 ADDITIONAL DEATHS IN THE UNITED STATES IN 1982.

WE MUST CONTINUE OUR EFFORTS TO IMPROVE MEDICAL CARE AND TO REDUCE THE PREVALENCE OF HYPERTENSION AND ELEVATED SERUM CHOLESTEROL; ON THE BASIS OF THIS REPORT, I BELIEVE WE MUST ALSO BEGIN PUTTING SUBSTANTIALLY MORE EFFORT INTO TRYING TO REDUCE THE NUMBER OF SMOKERS IN OUR POPULATION, BOTH ON THE PART OF GOVERNMENT AND THE PRIVATE SECTOR. THERE ARE NOW 55 MILLION PERSONS IN AMERICA, WHO, ON THE AVERAGE, SMOKE MORE THAN 30 CIGARETTES PER DAY. THIS IS AN INCREDIBLE ASSAULT UPON THE HEALTH OF AMERICANS, BUT ONE WHICH WE MUST REDUCE. WE ALREADY HAVE SEEN CIGARETTE SMOKING REDUCED IN 20 YEARS BY MORE THAN ONE-FIFTH. THAT'S NOT ENOUGH, WE MUST DO BETTER IN THE FUTURE.

THE RELATIONSHIP BETWEEN SMOKING AND LUNG AND OTHER CANCERS IS DIRECT AND STRONG, AND RECOGNIZED BY MOST AMERICANS; THE RELATIONSHIP BETWEEN CIGARETTE

SMOKING AND HEART DISEASE IS NOT AS WELL KNOWN BY THE PUBLIC AND YET IS RESPONSIBLE FOR MORE DEATHS. I WOULD ILLUSTRATE THIS POINT WITH THIS CHART.

CHART SHOWING ESTIMATED NUMBER OF CIGARETTE-RELATED
CANCER, OTHER CAUSES, HEART DISEASE

AS CAN EASILY BE SEEN, IN THIS COUNTRY SMOKING ACTUALLY CAUSES MORE DEATHS ANNUALLY FROM CORONARY HEART DISEASE THAN FROM ALL CANCERS. ADDITIONAL DEATHS DUE TO SMOKING FROM CEREBROVASCULAR DISEASE AND ATHEROSCLEROSIS OF THE PERIPHERAL VESSELS WOULD ADD TO THIS TOTAL.

LET ME SUMMARIZE THE KEY POINTS IN THIS REPORT.

1. CIGARETTE SMOKING IS A MAJOR CAUSE OF CORONARY HEART DISEASE IN THE UNITED STATES FOR BOTH MEN AND WOMEN. BECAUSE OF THE NUMBER OF CIGARETTE SMOKERS IN THE POPULATION AND THE INCREASED RISK POSED FOR CORONARY HEART DISEASE, IT SHOULD BE CONSIDERED THE MOST IMPORTANT OF THE KNOWN MODIFIABLE RISK FACTORS FOR CORONARY HEART DISEASE.

2. THE RISK OF DEVELOPING CORONARY HEART DISEASE AND DYING FROM IT GROWS WITH INCREASING CIGARETTE SMOKE EXPOSURE, AS MEASURED BY HOW DEEPLY ONE INHALES, THE AGE ONE STARTED SMOKING, THE YEARS SMOKED, AND THE NUMBER OF CIGARETTES SMOKED PER DAY. OVERALL, CIGARETTE SMOKERS EXPERIENCE A CORONARY HEART DISEASE DEATH RATE 70 PERCENT GREATER THAN NONSMOKERS; THOSE WHO CONSUME TWO OR MORE PACKS PER DAY HAVE TWO TO THREE TIMES THE RISK.

3. CIGARETTE SMOKING IS A MAJOR INDEPENDENT RISK FACTOR FOR CORONARY HEART DISEASE AND IT ALSO ACTS SYNERGISTICALLY WITH OTHER RISK FACTORS, PRINCIPALLY ELEVATED CHOLESTEROL AND HYPERTENSION.

4. CESSATION OF SMOKING RESULTS IN A SUBSTANTIAL REDUCTION IN CORONARY HEART DISEASE MORTALITY RISK.

5. WOMEN WHO SMOKE AND USE ORAL CONTRACEPTIVES INCREASE THEIR RISK OF HEART ATTACK APPROXIMATELY TENFOLD COMPARED WITH WOMEN WHO NEITHER SMOKE NOR USE ORAL CONTRACEPTIVES.

6. CIGARETTE SMOKING HAS BEEN FOUND TO SIGNIFICANTLY ELEVATE THE RISK OF SUDDEN DEATH. OVERALL, SMOKERS EXPERIENCE TWO TO FOUR TIMES THE RISK OF SUDDEN DEATH COMPARED TO NONSMOKERS.

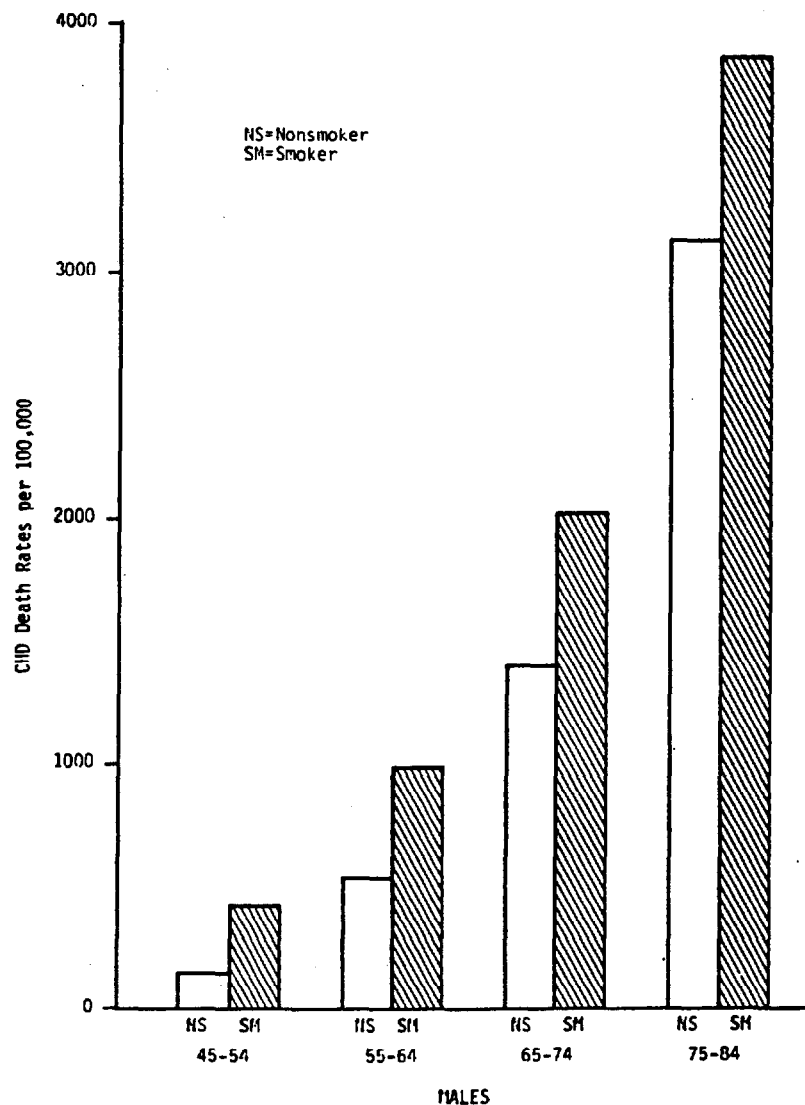
7. DATA FROM NUMEROUS PROSPECTIVE MORTALITY STUDIES HAVE SHOWN AN ASSOCIATION BETWEEN CIGARETTE SMOKING AND CEREBROVASCULAR DISEASE. THE RISK IS MOST EVIDENT IN YOUNGER AGE GROUPS, WITH LITTLE OR NO EFFECT NOTED AFTER AGE 65.

8. FEMALE CIGARETTE SMOKERS EXPERIENCE AN INCREASED RISK FOR SUBARACHNOID HEMORRHAGE. WOMEN WHO BOTH SMOKE AND USE ORAL CONTRACEPTIVES GREATLY INCREASE THE RISK FOR SUBARACHNOID HEMORRHAGE.

9. CIGARETTE SMOKING IS THE MOST POWERFUL MODIFIABLE RISK FACTOR PREDISPOSING TO ATHEROSCLEROTIC PERIPHERAL ARTERIAL DISEASE.

I WILL NOW OPEN THIS CONFERENCE TO QUESTIONS.

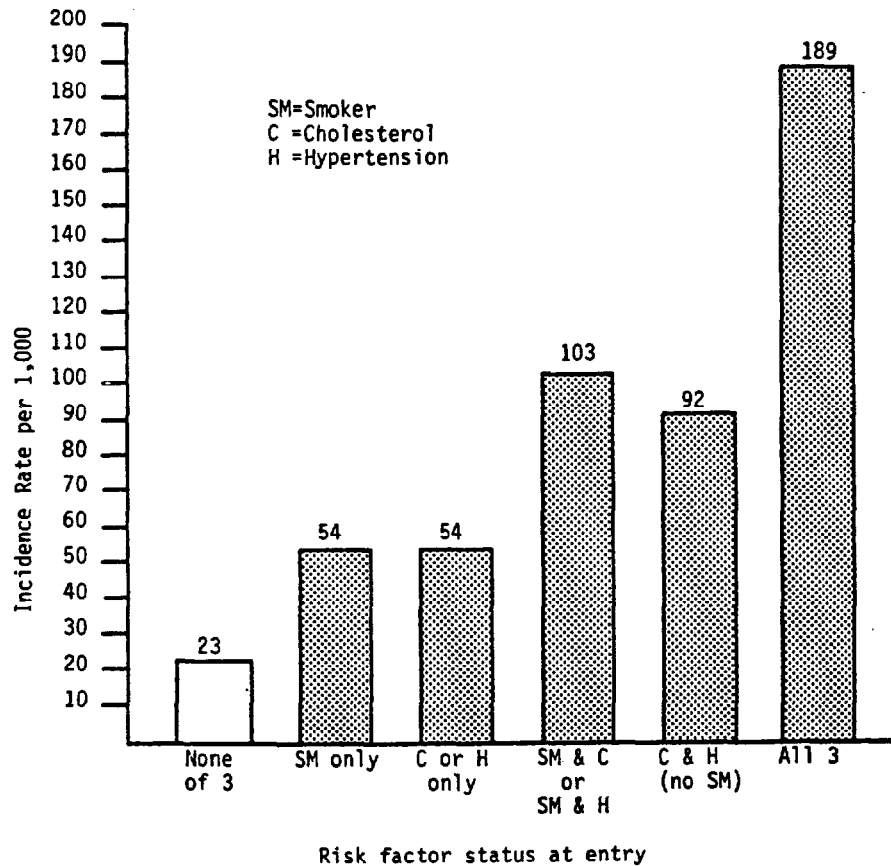
CORONARY HEART DISEASE DEATH RATES BY AGE AND SMOKING STATUS



SOURCE: ACS 25-STATE STUDY

Higher coronary heart disease (CHD) mortality rates are found in smokers than in nonsmokers for all age groups. The largest proportionate difference in CHD rates can be found in the younger age groups. However, the absolute difference in CHD mortality rates actually increases with increasing age, although the ratio of smoker:nonsmoker rates becomes smaller in the older age groups. This chart shows that for males in the youngest age group considered, the smoker:nonsmoker ratio is almost 3 to 1. The reduction in the ratio between CHD mortality rates for smokers and nonsmokers noted in the older ages reflects the rise in nonsmoker CHD mortality with increasing age.

INTERACTION OF MAJOR RISK FACTORS ON THE INCIDENCE OF FIRST MAJOR CORONARY EVENT

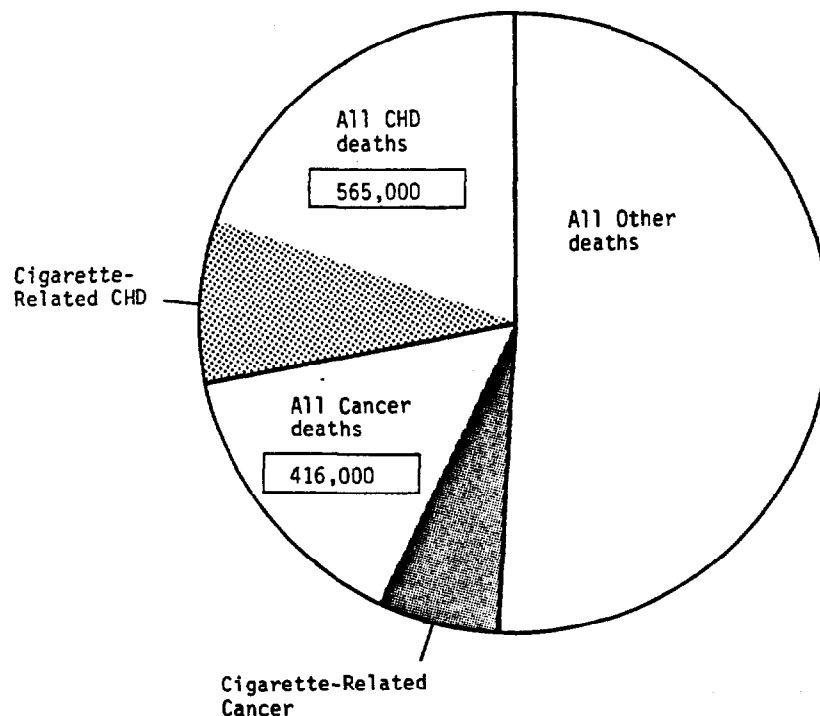


¹ Definitions of the three major risk factors and their symbols: hypercholesterolemia (C), ≥ 250 mg/dl; elevated blood pressure (H), diastolic pressure ≥ 90 mm Hg; cigarette smoking (SM), any current use of cigarettes at entry.

SOURCE: NATIONAL POOLING PROJECT STUDY

This chart demonstrates the interactive effect of the major risk factors on the probability of developing a major coronary event. (Major coronary event is defined as a nonfatal or fatal myocardial infarction or sudden death from CHD.) The risk of a major coronary event increases exponentially with each additional risk factor. An individual who smokes approximately doubles his CHD risk compared to a person who has none of the three major risk factors present. Two of the factors increases the risk to approximately four-fold, while the presence of three is almost an eight-fold greater risk compared to an individual who has none of the three major factors.

ESTIMATED CIGARETTE-RELATED CORONARY HEART DISEASE AND CANCER DEATHS



TOTAL U.S. MORTALITY DATA, NCHS, 1980

Up to 30 percent of CHD deaths annually are related to smoking. About the same percent of cancer deaths are judged to be related to cigarette smoking. As this chart shows, however, the total number of cigarette related CHD deaths is actually larger than cigarette related cancer deaths since CHD is the leading cause of death in the United States. This chart does not show the cigarette smoking associated cerebrovascular disease and arteriosclerotic peripheral vascular disease deaths. Thus, the total number of cardiovascular disease deaths due to smoking is greater than any other cause of death in our society.